



KOMOREBI

SUNLIGHT THAT FILTERS THROUGH THE LEAVES OF TREES.

Seth Chimanlal Nagindas is a school and group of institutes located within the campus of Ambawadi.

It contains schools from Kindergarten to 12th grade, Fine arts college, a teachers training college, a Jain temple.

As we enter the C.N. site we feel the environment that is calm and away from the hustle bustle of the city.

The campus is the largest open, green space for the community. It is also the place, where many environment related drives take place.

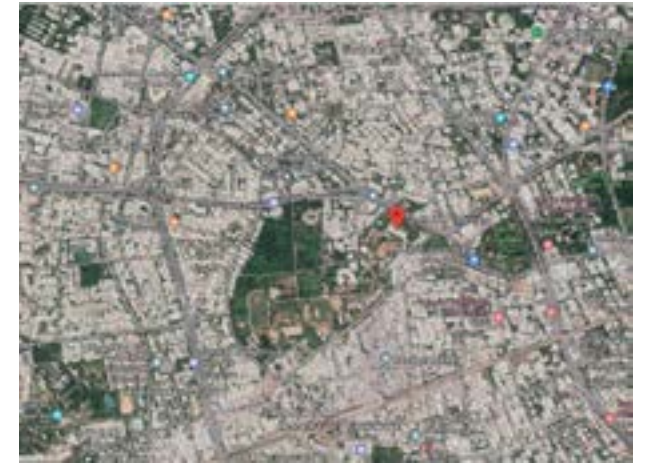


Architectural Design Studio V & VI

SITE VISIT :

The campus is one of the few and the largest of all green open space in the community, it serves as a public space for morning and evening walks and sometimes for community sports events. Inspired from the lush green campus I decided to break the existing fabric of green within the built and try to built within the green.

Thus I selected the most dense green part of the campus, which is also the place used by public for exercise and leisure walks.



INTER-RELATION OF SPACES :

- A : Experience :** This road is densely covered by trees on both the sides, thus sun penetrates through the gaps and create beautiful effect.
- B : Approach :** The site can be accessed from the gate which is on Surendra Mangaldas Road, once we enter from the gate both the side of the internal road dense forest.
- C : Context :** Residential blocks which is not visually connected to the location selected due to dense forest. Though some part of the site can be seen vividly.
- D : Context :** Shishuvihar and other school buildiquires discipline, and its functions hours are fixed.
- E : Context :** Fine arts college, comparatively flexible timings.

SITE VISIT & SITE SELECTION

- SIMPLICITY
- EDUCATION IN MOTHER TONGUE
- DISCIPLINE & FREEDOM
- NATURE
- CHARITY
- ALL ROUND DEVOLOPMENT
- MORAL VALUES

USER	TIMING	PURPOSE
Teachers	Any time except teaching hours	- The road beside is used to reach fine arts college. - Morning / Evening walk.
Other Staff	Any time of the day	- Use the gate to enter the campus. - Access to Fine art college. - Cleaning/maintenance purpose.
Students	Morning before school and after college hours.	- Access to fine arts college. - Generally school going children dont use this road.
Public	Morning 6 to 9 and Evening 5-7	- Mainly students of fine art college use this road. - Morning/Evening walks. - To drop off or pick up students.

The House of Knowledge as an institution envisioned for recording & building knowledge, with books and digital media pertaining to the arts, sciences, medicine, sociology, economics, anthropology and other fields of human knowledge. The institution provides an environment conducive to inspire discussions, debates, elocutions, and exchange of ideas in all forms relating to a wide range of topics. Workshops will be held regularly along with exhibition. The house of the Knowledge will be a place for encouraging self-learning. The Library and work shops will cater to the CN inhabitants as well as the citizens of Ahmedabad.



PROGRAM & SITE ANALYSIS

STUDIO BRIEF

SITE FEATURES

SPACE REQUIREMENTS AND SPECIFICATION

RESPONSE TO CONTEXT

RELATION WITH EXSISTING FABRIC

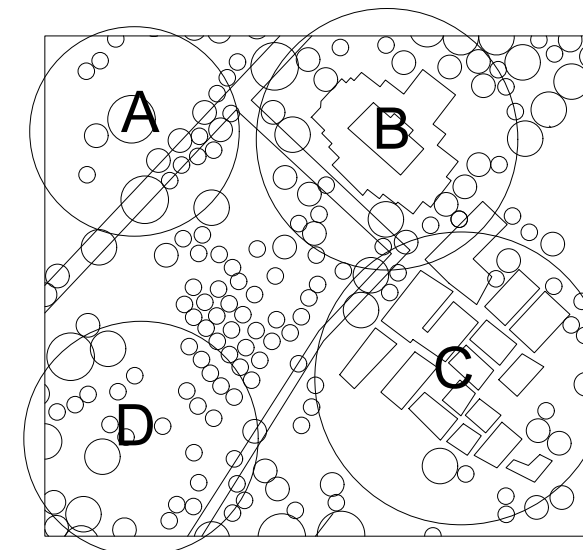
SITE LOCATION DETAILS :

- 1) In Front of fine arts college, thus exhibition can easily take place here.
- 2) Near to one of the entrance gate which is from the main road and in front of residential buildings, thus easily accessible.
- 3) The building is just beside the internal roads where people from around the campus come for morning walk.
- 4) Away from the school and visually disconnected too, thus no disturbance of public which comes at the center at any point of time in the day.



AREA REQUIREMENT :

Stack Area (Books & Multimedia storage)	500-800 Sq M
Computer & Multimedia Area	100-150 Sq M
Reading Area (Individual & Table area)	200-300 Sq M
Common Reading Area	100-200 Sq M
Service + Admin +Toilet + Reception +Entrance + Pantry	100-200 Sq M
Cafeteria	50-100 Sq M
Exhibition	200
Workshop/seminar/ multipurpose	300 sq M
Circulation	20-30%
Total	~2000-3000 Sq M



RELATION WITH EXSISTIG FABRIC

A : Dense forest, no built mass, these trees shade the road from one side thus the space here remains comparatively cooler, Komorebi effect can be felt.

B : Built mass of height about 6.5m, with internal courtyard thus the building function around the internal courtyard.

:Along side there is a parking too but most of the parking remains empty as vehicles of only fine arts students and staff is parked there.

C : Residential buildings with no direct access to the site, built masses with heights varying from 6m to 14m. The location selected is not visually connected to the residential blocks because of the density of trees.

D : Trees and small shrubs leading to shishuvihar, comparatively less dense, both shishuvihar and fine arts college are at a considerable distance from each other thus functioning of both the buildings are independent of each other.

The site chosen witness a effect called komorebi.

It is basically filtering of light through voids in the foliage of a tree.

This effect is rare because, not many green chunks are left in ahmedabad and also the climate in the city supports this effect as the sun shines sharp, which results in exaggeration of this effect.

Achieving a similar effect through Architecture was my aim for the studio, thus design decisions, were taken considering the same.



KOMOREBI

The interplay between light and leaves when sunlight shines through trees.



Some examples how similar effect can be achieved in a built form.

SITE PROPOSAL AND BUBBLE DIAGRAM

VOIDS BETWEEN THE TREES ARE THE POTENTIAL SPACES.

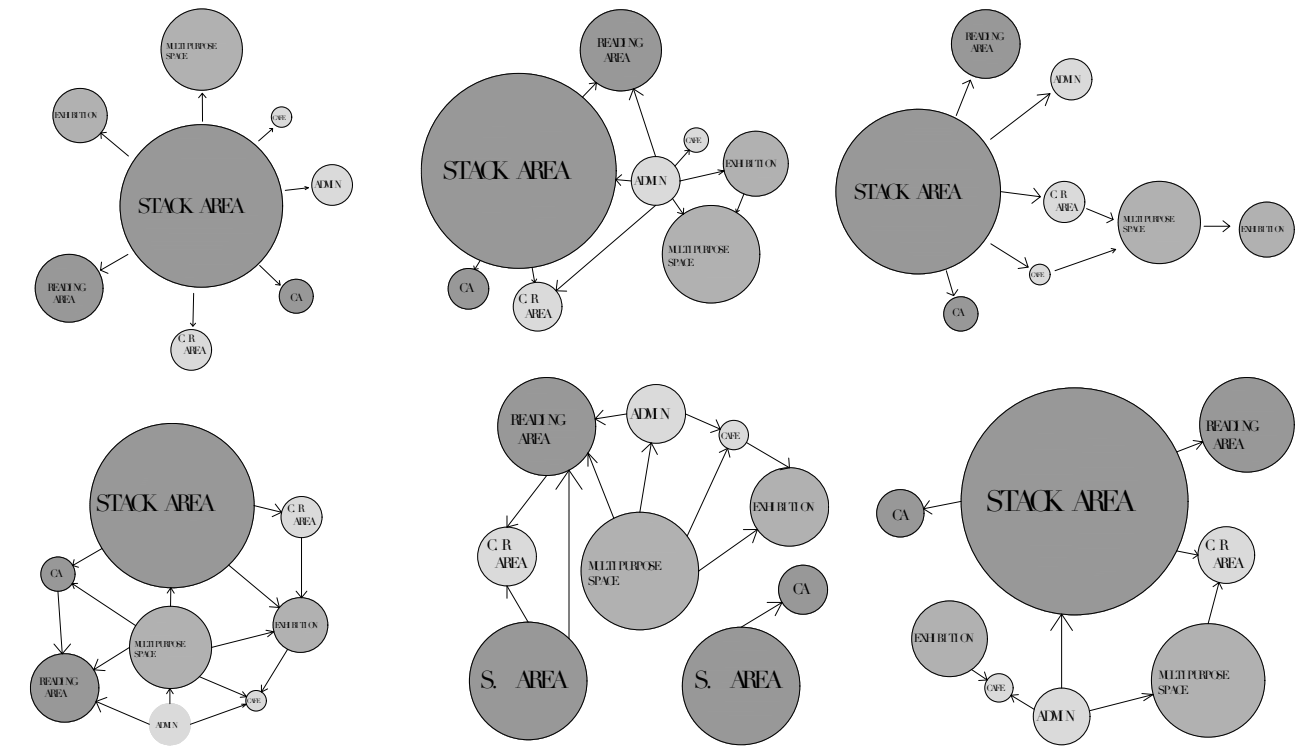
HIERARCHY OF SPACES

CONNECTIVITY AMONG THE SPACES

KOMOREBI

HEIRARCHY OF SPACES :

- 1) Common reading spaces
- 2) Reading space
- 3) Computer labs
- 4) Stack area
- 5) Exhibition space
- 6) Multi purpose space
- 7) Cafe
- 8) Admin



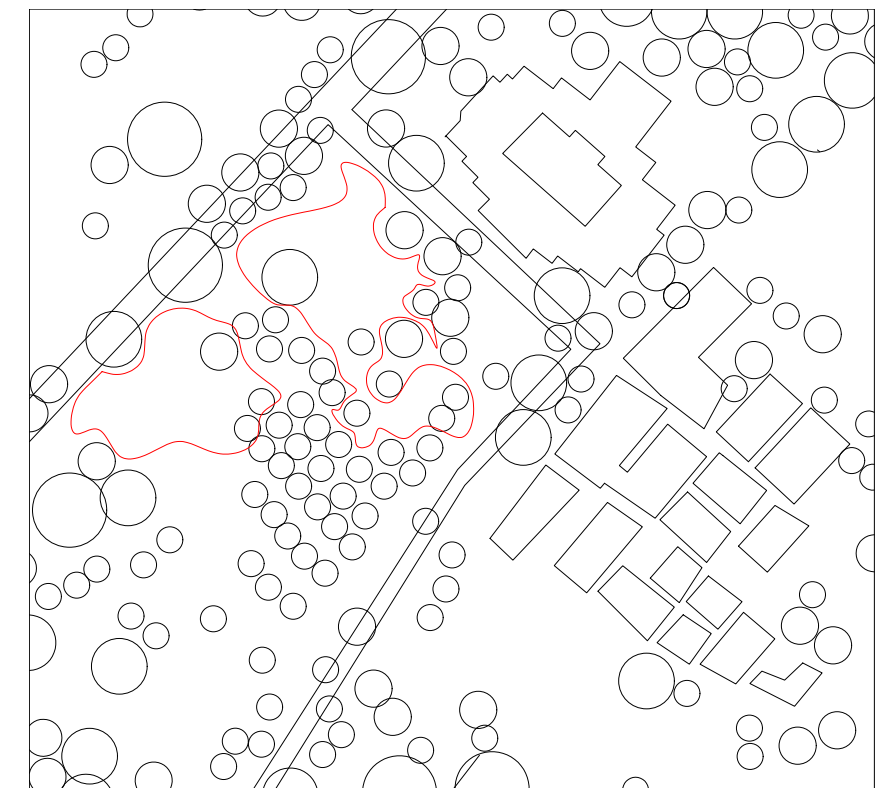
SITE PROPOSAL :

Keeping in mind the komorebi effect and the ideology of building between the green led to the decision of building in the voids left by the trees.

The diagram shows the first decision, that the the form of my building will be guided by the trees, thus offset from the tree boundary will give me my design.

This will be the shaded area, solving issues of the climatic conditions in Ahmedabad and also will witness Komorebi.

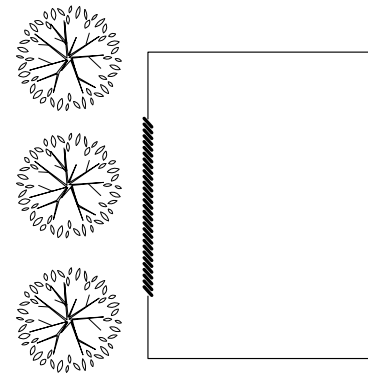
The movement within the built form will be guided by th density of the trees, thus defining my movement and guiding the placement of activities.



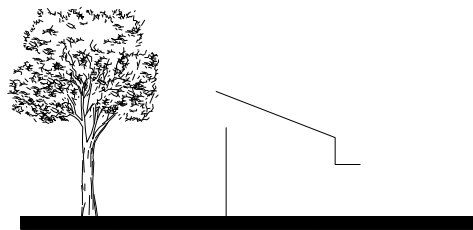
STANDS :

- No existing trees were cut.
- Most dense part of site was chosen
- The form of the building was defined by trees
- Facades with several openings showing komorebi effect.
- Campus built on stilts.
- Light material to be used.
- Percolation wells will be introduced to make the campus more environment friendly.
- Number and denisty of trees will decide the immediate response of the built form.

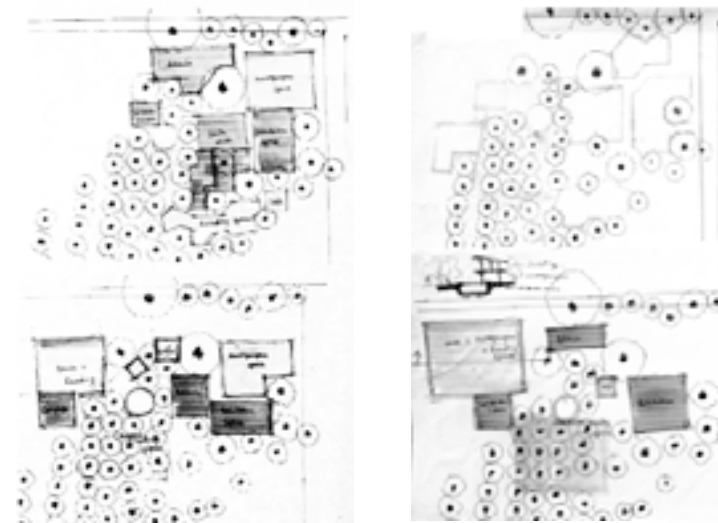
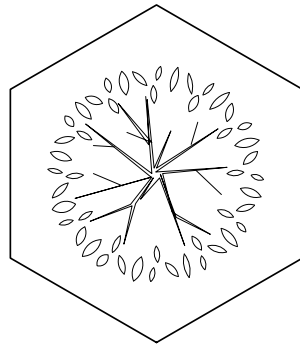
Perforation in the facade facing trees to blend the space with exsisting green fabric.



Opening of desirable form and size for witnessing komorebi effect inside the space



Orientation of the form in a way that exsisting of the tree can be celebrated.



First diagram shows the design where people will be at foliage level and the space below will be circulation space. Second diagram shows the trees treatment to make the space around more usable.

DESIGN DEVOLPMENT :

The set rules for design and stand guide through the process of design devolpment, by justifying the location of different spaces, considering the area requiremnet and movement through the trees. Combination of these will then produce an optimum design with the best space utilization and movement path,

Diagram shows the relation between trees and library space and visual connectivity from ground level.



Diagram shows building to invite the inter-play of light inside the space.



DESIGN RULES AND STANDS.

DESIGN DECISIONS

FACADE TREATMENT

**ORIENTATION OF THE OPENING
FORM THE BUILT FORM**



Longer facade to face the trees.



Placment of the built mass as per the movement through trees



Form derived from the trees.



Activities taking place around tree, making it eminent part of design



Facade should be treated to respond to trees.

INITIAL LAYOUT :

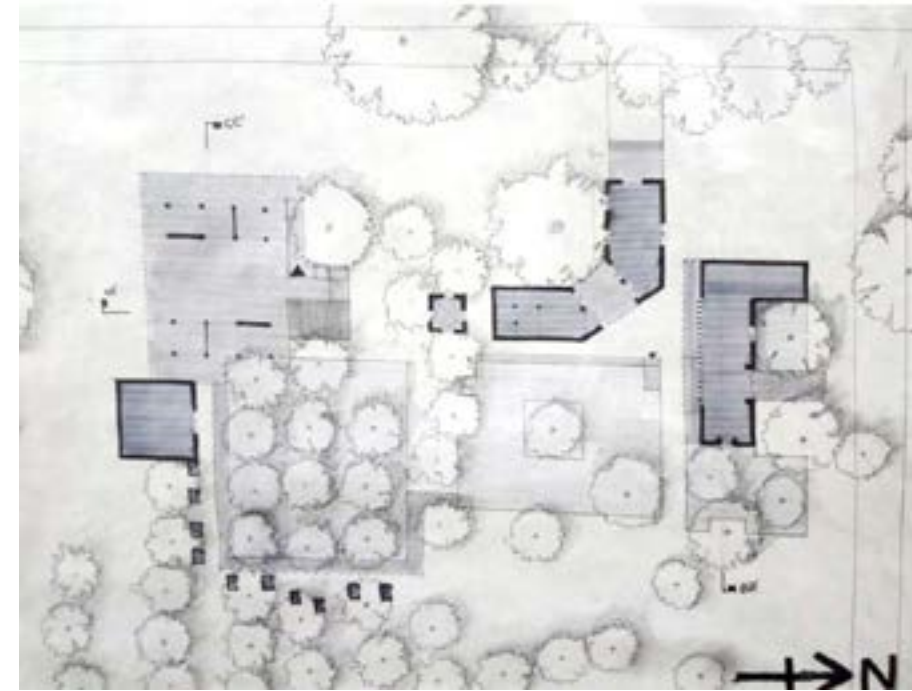
The set rules and design decisions finally led to a first set of design.

The diagram on the right is the first design model with all existing trees and built form in relation to it.

Further the design is explained using schematic to scale drawings followed by design critique.



SITE MODEL



PLAN



SECTION CC'



SECTION BB'

INITIAL LAYOUT :

One of the arrangement was chosen and further modified as per the set rules and space area requirements, and thus the first set of design was developed.



SECTION AA'

DESIGN CRITIQUE :

- Spaces were too distant from each other.
- Too many open spaces will be unpleasant for the users, considering the heat in Ahmedabad.
- Wet construction will require space and thus trees might get damage.
- Open library will result in security issues.
- Too private spaces might lead to misuse of the spaces.
- Open campus will be difficult to maintain and guard.
- Fall from trees will not be suitable for open cafes or open reading spaces.

FIRST LAYOUT

Bubble diagram led to a arrangement
Design decisions and rules brought to function

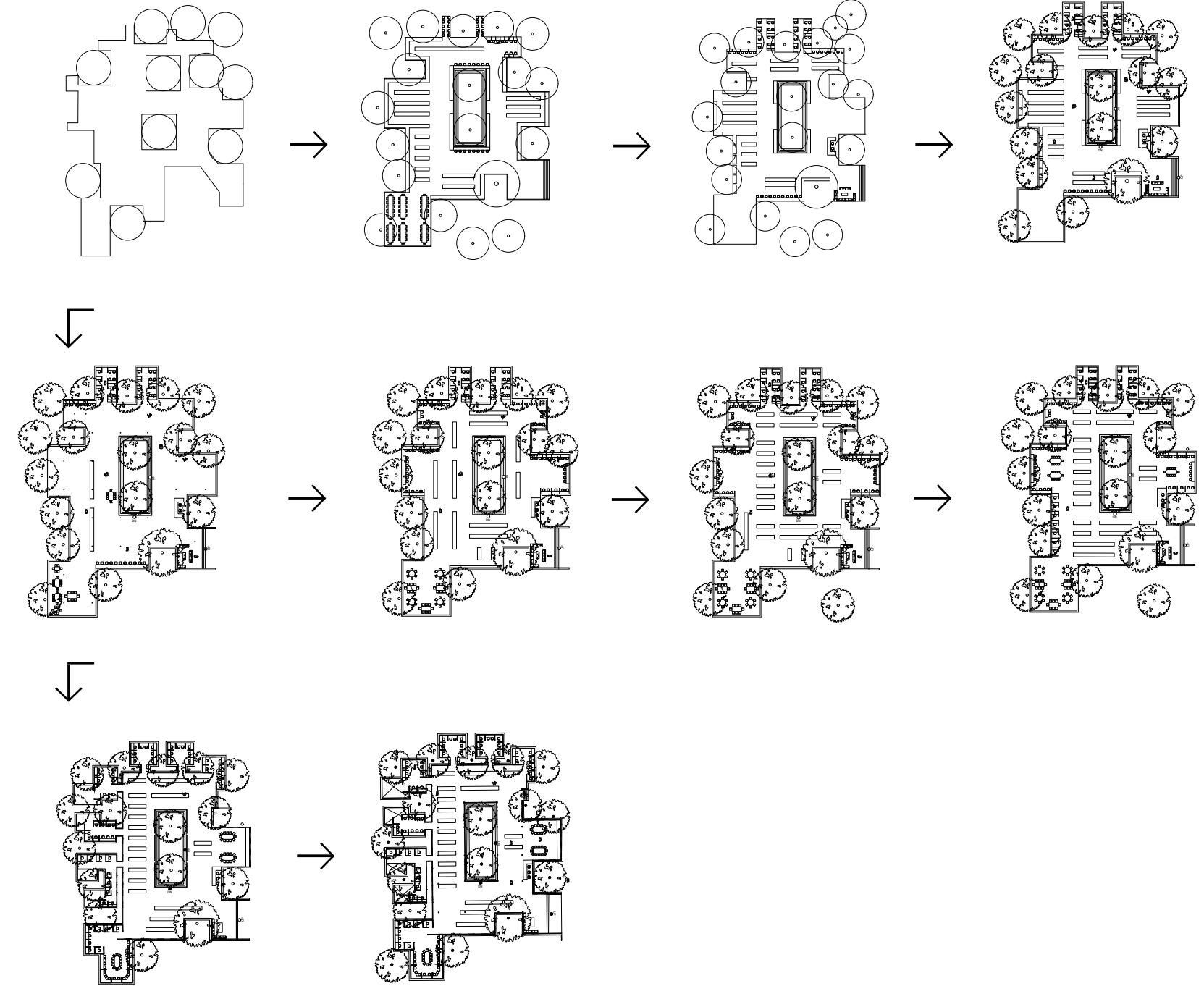
BAD LIBRARIES BUILD COLLECTION,
GOOD LIBRARY BUILD SERVICES,
GREAT LIBRARIES BUILD COMMUNITY.

After various permutation combination an optimum layout for library was developed keeping all the design descions and rules intact.

Library has a courtyard and extended balconies to experience reading in open.

Narrow passages from stack to reading space to exaggerate change of space.

Private reading cubicals and provision of spaces for group discussions.



EVOLUTION OF LIBRARY

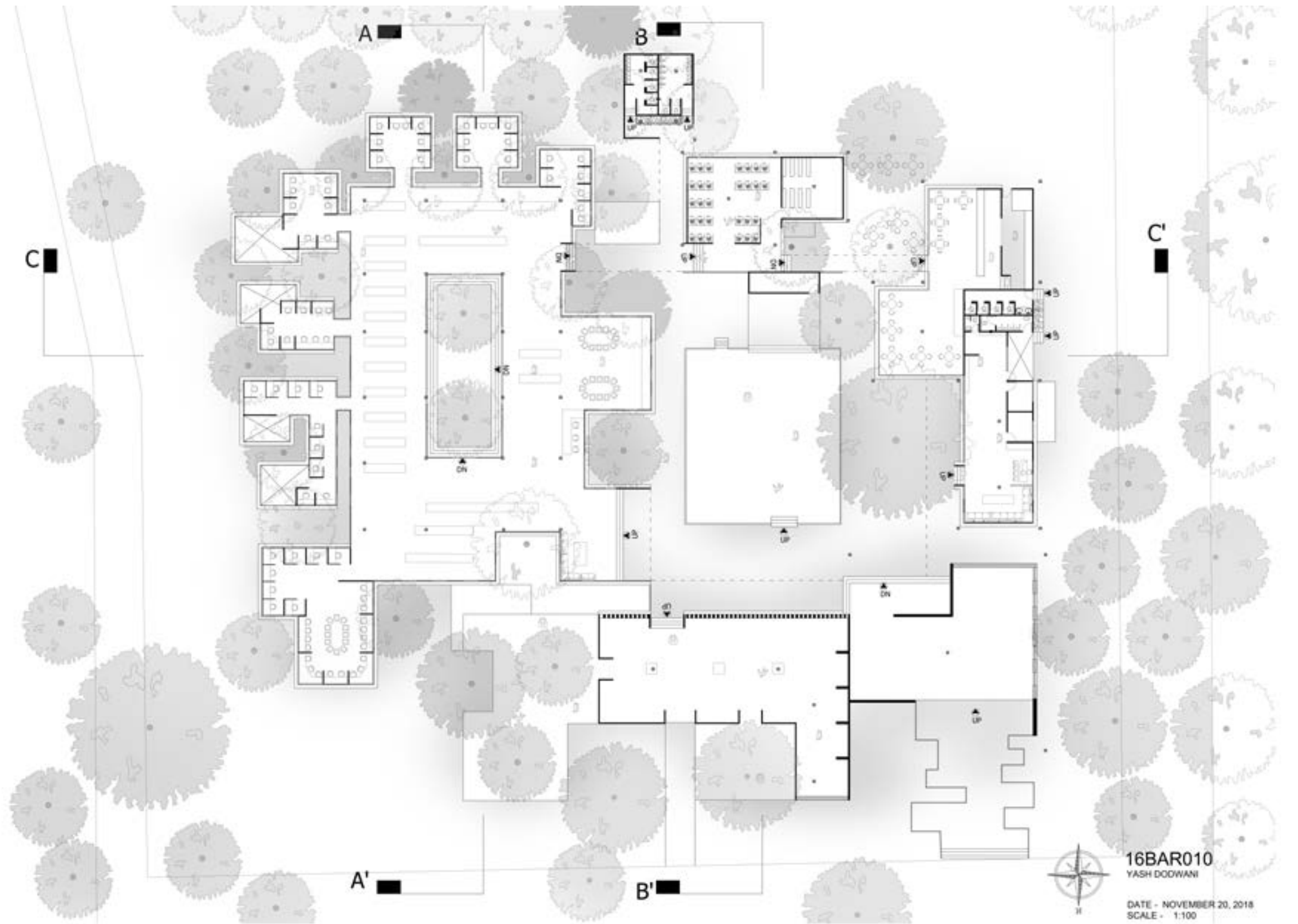
STACK ARRANGEMENT POSSIBILITIES

PRIVATE, SEMI PRIVATE AND COMMON READING SPACES

EXTENDED DECKS ACTS AS TRANSITION BUFFER

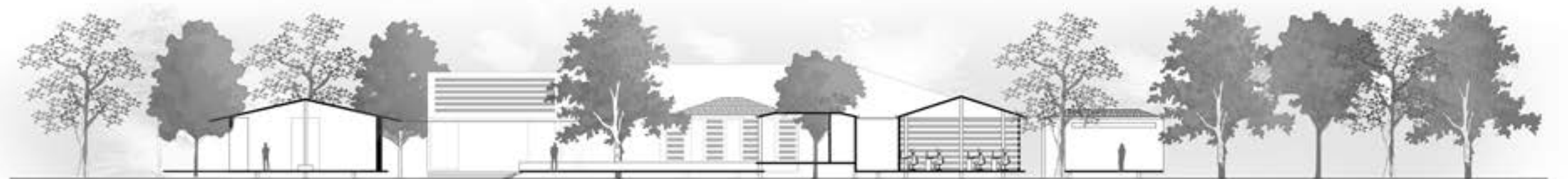
VARIATION IN HEIGHT OF STACK AND READING SPACE

FACADE TREATMENT AS PER FUNCTION OF THE SPACE





SECTION AA'



SECTION BB'



SECTION CC'

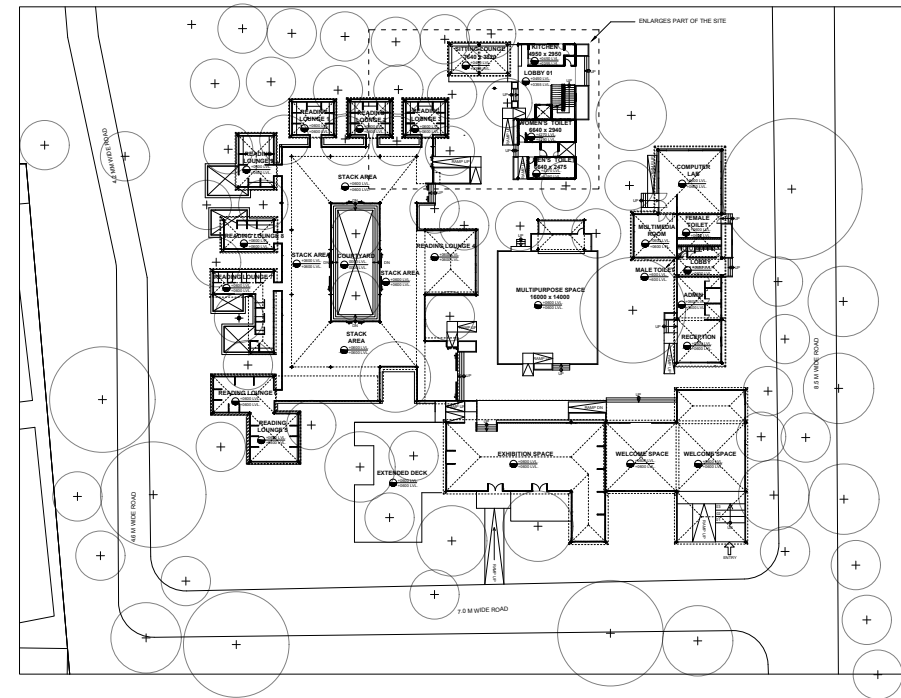
WORKING DRAWING :

- As the design moves towards execution service block, with lift, staircase, pantry and toilets was added, modifying the existing drawing a bit.

- Roofing structure was further developed and thus dimensions of some spaces were cahnged.

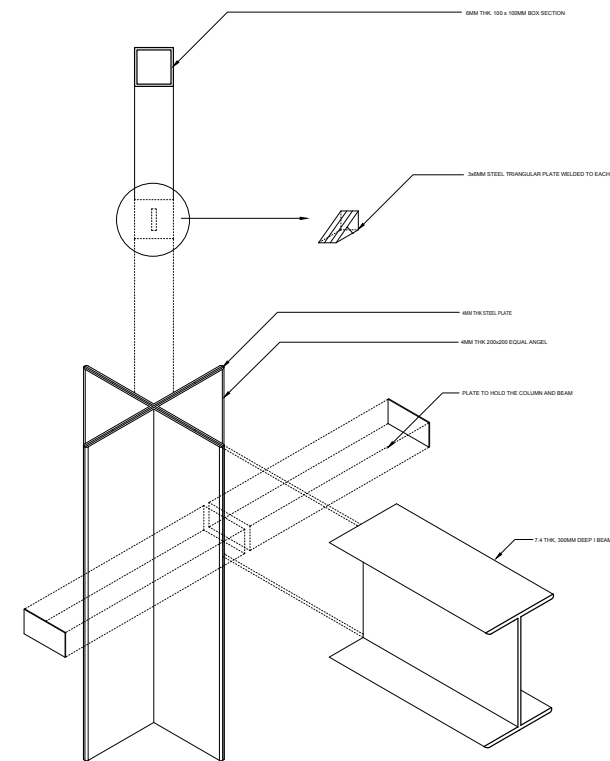
- Rain water harvesting and drainage comes into play with addition of basic services in the building.

- A unique structural system was developed suiting the spatial quality of the building.



WORKING DRAWING

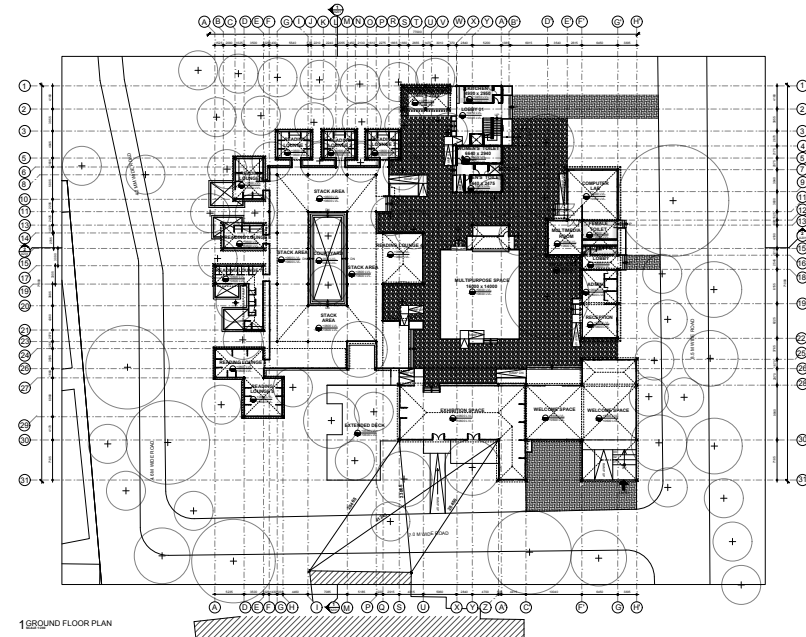
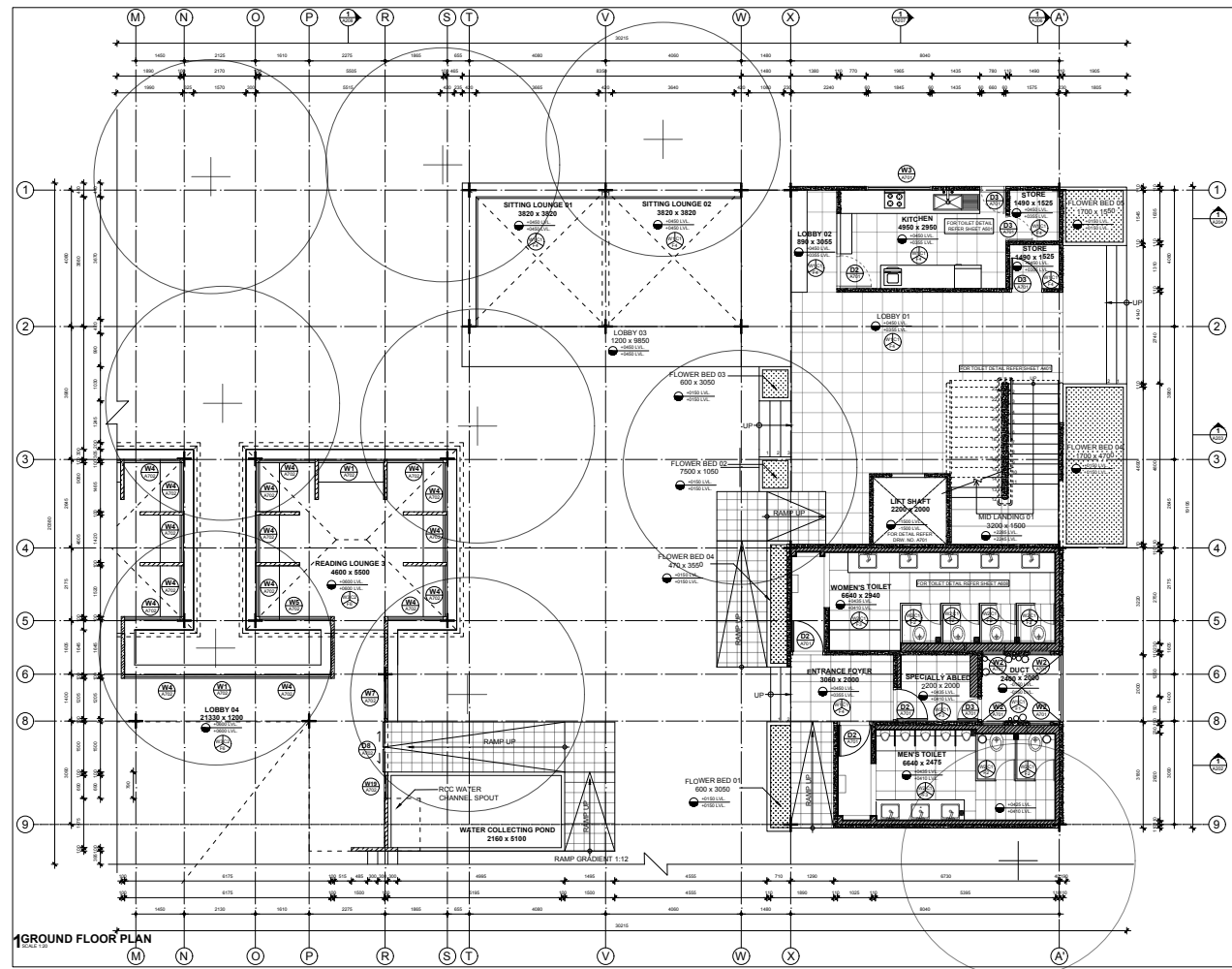
- CHANGE OF STRUCTURE
- INTRODUCTION OF NEW MATERIALS
- ADDITION OF SERVICE BLOCK
- CHANGE IN LIBRARY READIN SPACE
- ROOF STRUCTURE DEVOLOPMENT



COLUMN AND BEAM JUNCTION :

Plus shape of column is used in the design formed by 4 equal angles of 200 x 200, 8mm thk and 300mm deep beam with 7.4 mm of thickness, further with design devoplment the thickness of the column was increased to 12mm and the junction between beam and column was improved to increase strength.

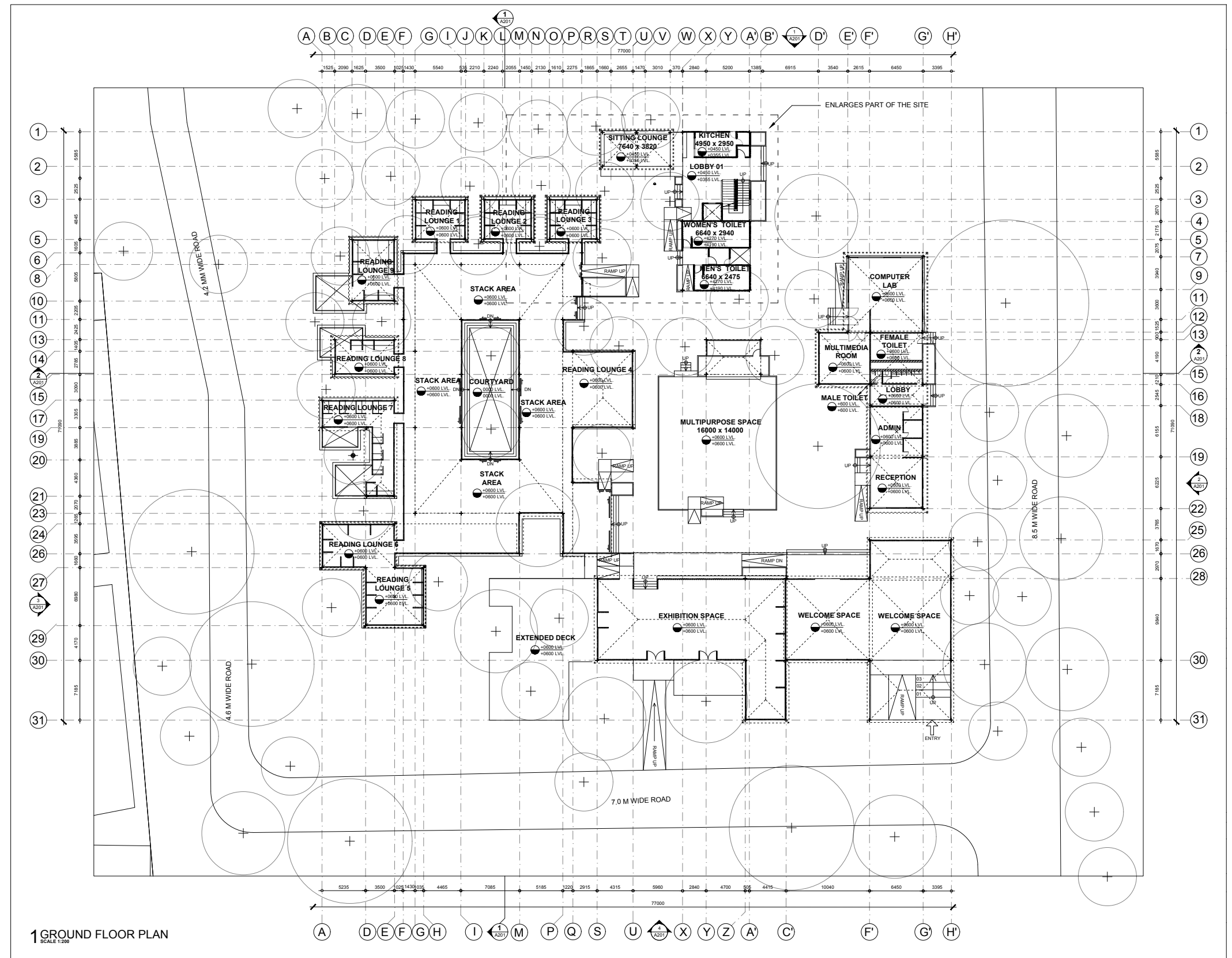


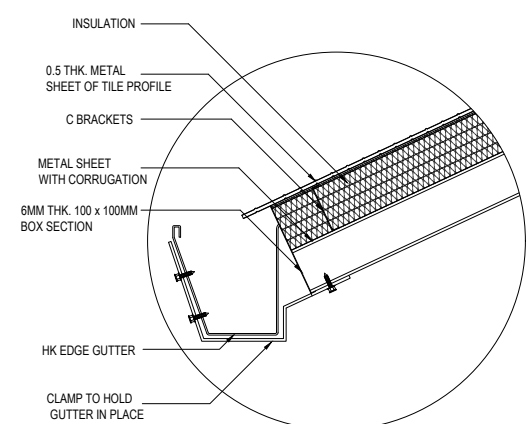


-Top left is the part plan of the campus.

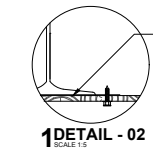
-In the left is landscape plan.

- Right side of the page is construction drawing of ground floor plan.

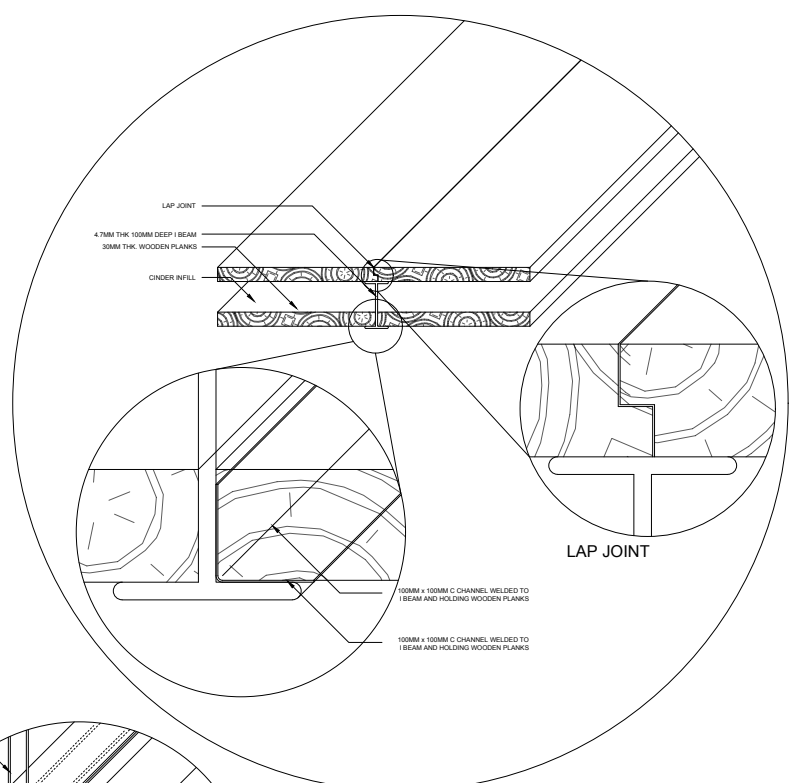




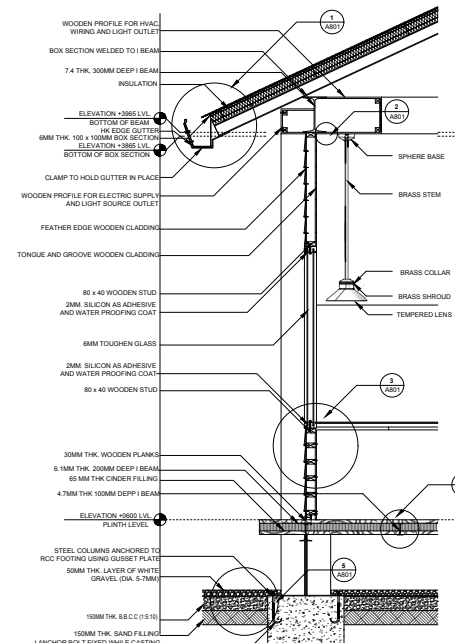
1DETAIL - 01
SCALE 1:5



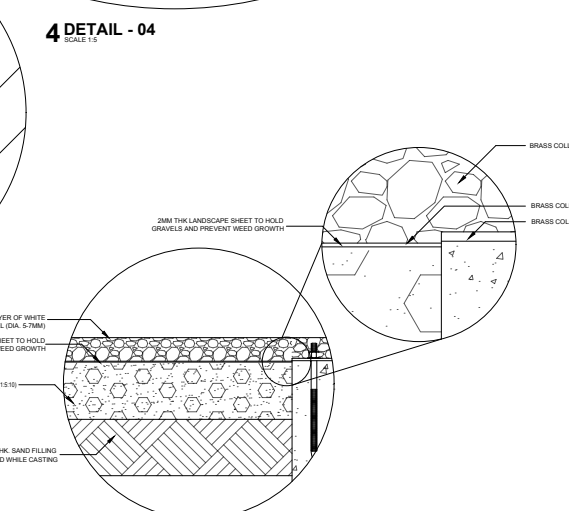
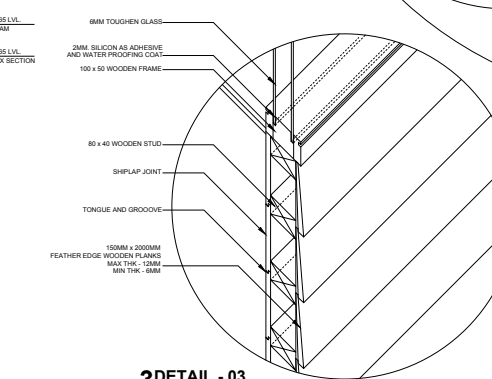
1DETAIL - 02
SCALE 1:5



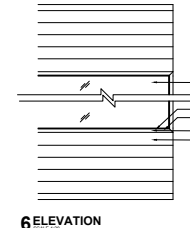
4DETAIL - 04
SCALE 1:5



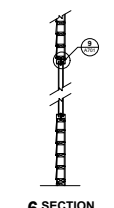
3DETAIL - 03
SCALE 1:5



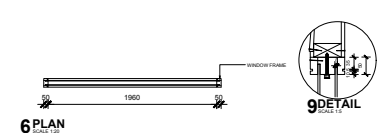
5DETAIL - 05
SCALE 1:5



6ELEVATION
SCALE 1:5

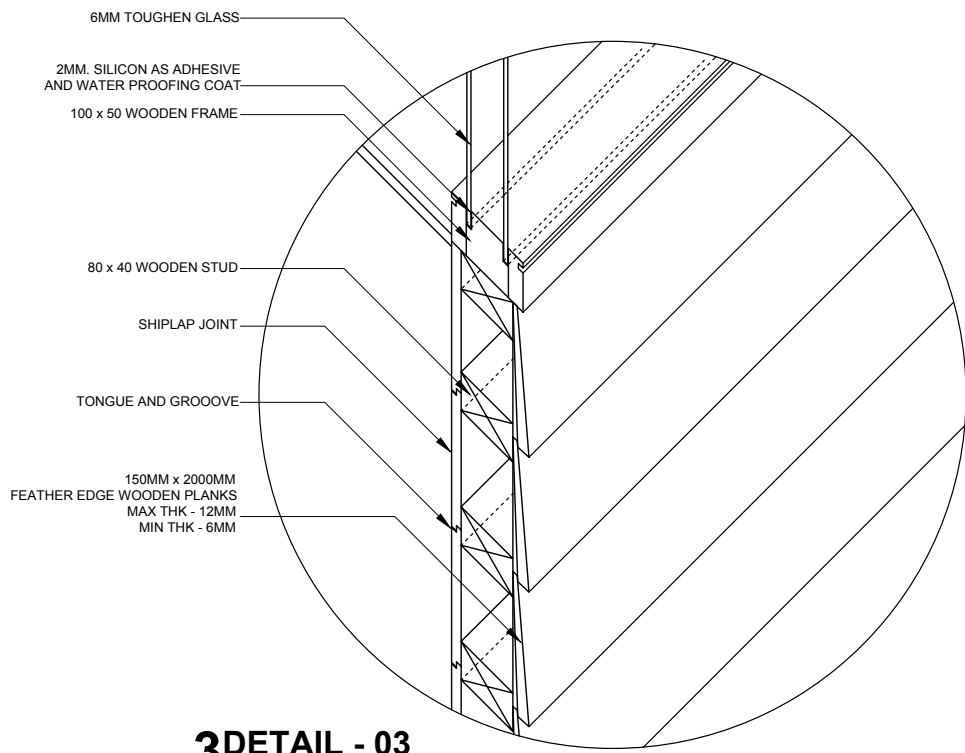


6SECTION
SCALE 1:5

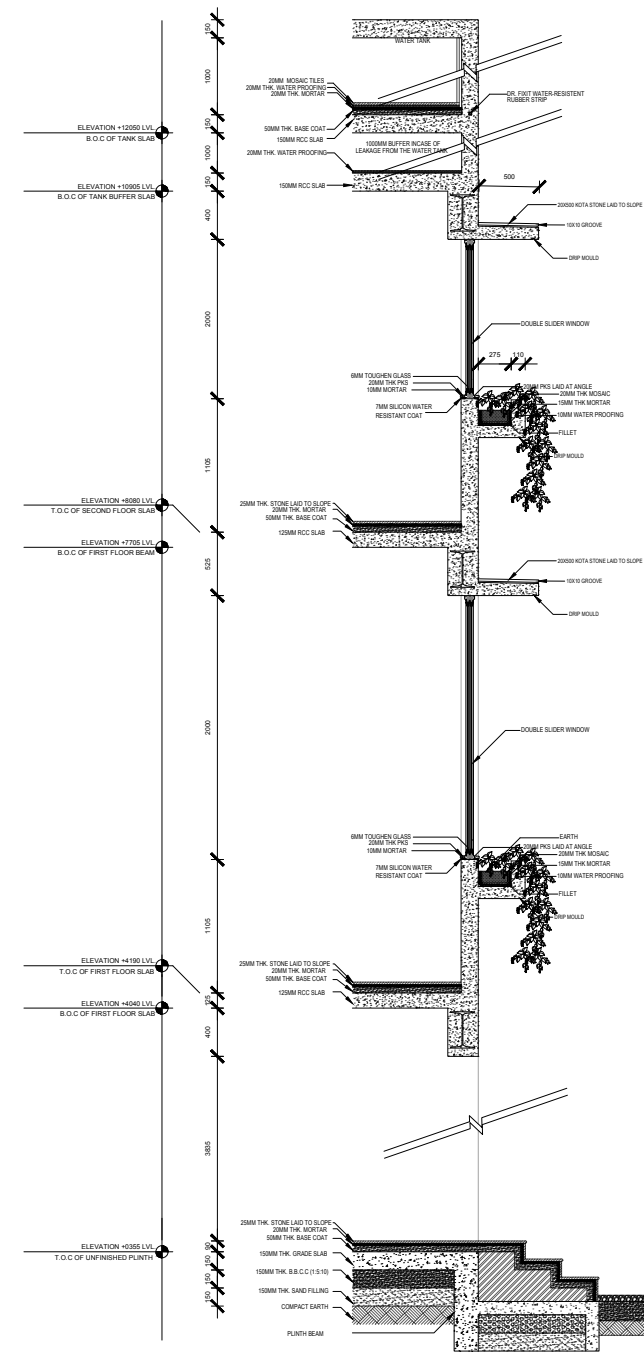


6PLAN
SCALE 1:5





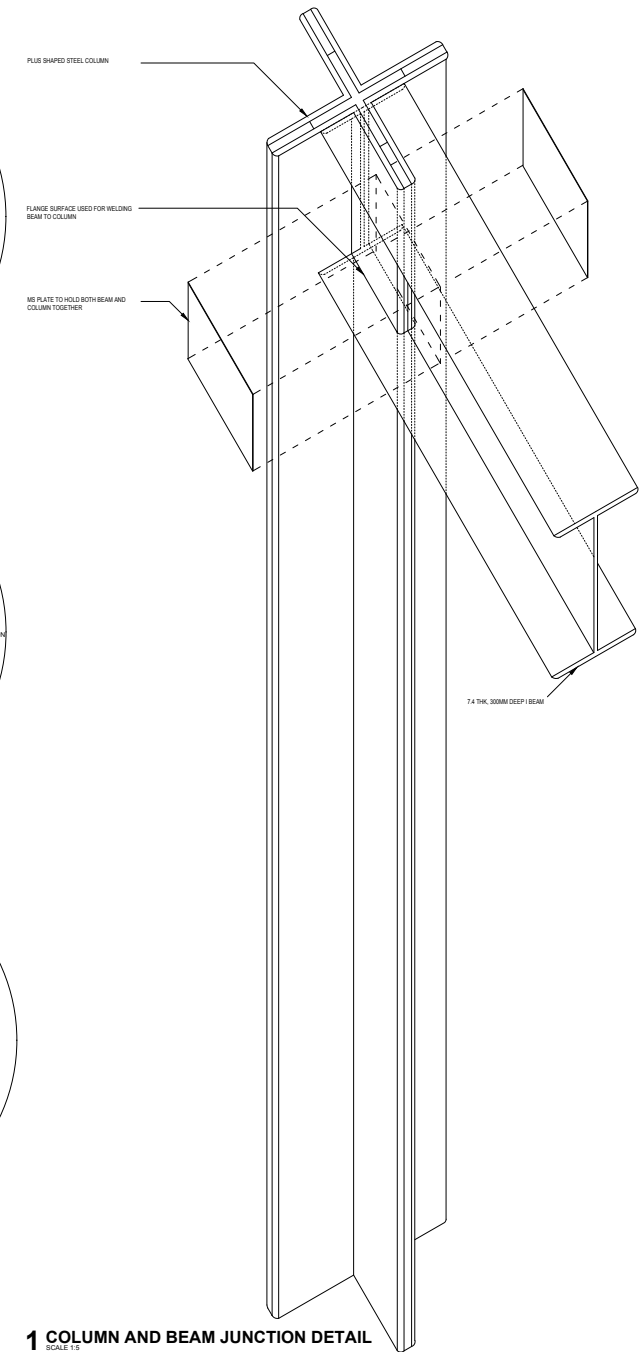
3DETAIL - 03
 SCALE 1:5



4 COLUMN BEAM JUNCTION DETAIL
 SCALE 1:5

3 BOX SECTION AND COLUMN JUNCTION
 SCALE 1:5

2 COLUMN DETAIL
 SCALE 1:5



1 COLUMN AND BEAM JUNCTION DETAIL
 SCALE 1:5

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